



# K A N S A S

RODERICK L. BREMBY, SECRETARY

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DEPARTMENT OF HEALTH AND ENVIRONMENT

August 14, 2006

Mr. Kenneth Buchholz, Chief  
Enforcement/Fund-Lead Removal Branch  
Superfund Division  
U.S. Environmental Protection Agency, Region 7  
901 North 5<sup>th</sup> Street  
Kansas City, Kansas 66101

**SUBJECT: State of Kansas Applicable or Relevant and Appropriate Requirements for a Time-Critical Removal Action at the United Zinc #1 Site in Iola, Kansas**

Dear Mr. Buchholz:

The Kansas Department of Health and Environment, Bureau of Environmental Remediation (KDHE/BER) received an e-mail request from Mr. Eddie McGlasson of the U.S. Environmental Protection Agency (EPA), Region 7, Superfund Division (SUPR), on August 11, 2006. The e-mail requested that the state of Kansas provide applicable or relevant and appropriate requirements (ARARs) for a time-critical removal action at the referenced site. The state of Kansas ARARs are attached as Table 1 and the policies or guidelines that are to be considered (TBC) standards for the site are attached as Table 2. Should EPA/SUPR encounter unexpected or changed conditions at the site during the time-critical removal action or consider performing additional activities at a later date, including a Remedial Investigation/Feasibility Study, a revised set of ARARs may need to be developed.

Additionally, a copy of an EPA Action Memorandum entitled "Request for Removal Activities at the United Zinc #1 Site, Iola, Allen County, Kansas, Time-Critical Removal," dated August 4, 2006, was included with the referenced e-mail request. EPA signed the Action Memorandum on August 4, 2006, prior to the draft version being made available to KDHE/BER for review and comment.

Due to the critical nature of the request, these ARARs and TBCs were also conveyed to Mr. McGlasson, via e-mail transmission on this date.

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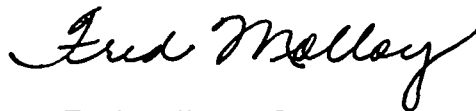


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Please let me know if you would like clarification or require additional information. If you have any questions regarding this submittal, please call me at (785) 296-1682.

Sincerely,

A handwritten signature in black ink, reading "Fred Molloy". The signature is written in a cursive, flowing style.

Fred Molloy, P.G.  
Unit Chief and Project Manager  
Superfund Unit/Assessment and Restoration Section

Enclosure

FM: at

cc: Leo Henning → C3-001-71726  
David Stutt, KDHE/SEDO  
Vicki O'Brien, KDHE/SEDO  
Eddie McGlasson, EPA Region 7 OSC

<b>TABLE 1</b> <b>KANSAS POTENTIALLY APPLICABLE RELEVANT AND APPROPRIATE REQUIREMENTS</b>		
<b>Citation</b>	<b>Description</b>	<b>Comment</b>
<b>Ambient Air Quality Standards and Air Pollution Control</b>  K.A.R. 28-19-1 to 28-19-801	Regulates air emissions from processing operations, indirect heating equipment, and incinerators. Establishes requirements for Attainment and Non-Attainment Areas. Establishes requirements for Stack Heights. Restricts open burning.	Will be applicable if a remedy results in the release of contaminants to the air.
<b>Asbestos Control</b>  K.A.R. 28-50-1 to 28-50-14	Established the requirements for licensing of businesses and examination and certification of asbestos workers. Established requirement for notification of asbestos projects. Establishes work practices for asbestos projects. Establishes rules for disposal of asbestos containing materials.	Will be applicable if asbestos is handled or removed from a site or encapsulated.
<b>Agricultural Chemicals, Commercial Fertilizers, Anhydrous Ammonia, and Chemigation</b>  K.A.R. 4-1-1 to 4-1-17, K.A.R. 4-4-1 to 4-4-984, K.A.R. 4-10-1 to 4-10-17, and K.A.R. 4-20-1 to 4-20-15	Requires labeling and registration of agricultural chemicals. Provides regulations for storage and secondary containment, transportation and record keeping for commercial fertilizers and anhydrous ammonia. Requires permitting and certification of operators of chemigation equipment.	Will be applicable if agricultural chemicals, commercial fertilizers or anhydrous ammonia are used at site. Will be applicable if chemicals or animal wastes are applied by chemigation.
<b>Construction, Operation, Monitoring and Abandonment of Salt Solution Mining Wells</b>  K.A.R. 28-43-1 to 28-43-11	Regulates the construction, operation, monitoring, testing and abandonment of salt solution mining wells.	Will be applicable if salt solution mining wells are present.
<b>Emergency Planning and Right-to-Know</b>  K.A.R. 28-65-1 to 28-65-4	Designated to help local communities protect public health, safety and the environment from chemical hazards. Enables communities to prepare to respond to unplanned releases of hazardous substances. Requires facilities at which hazardous substances are present to report the presence of these materials to emergency responders. Requires companies to report the release of hazardous substances.	Will be applicable if hazardous chemicals are stored or used at a site.
<b>Environmental Use Controls</b>  K.S.A. 65-1,221 to 65-1,235	An environmental use control "means an institutional control or administrative control, a restriction, prohibition or control of one or more uses of, or activities on, a specific property, as requested by the property owner at the time of issuance, to ensure future protection of public health and the environment when environmental contamination which exceeds department standards for unrestricted use remains on the property following the appropriate assessment and/or remedial activities as directed by the department pursuant to the secretary's authority".	These restrictions are strictly voluntary as the landowner applies for the restriction to their property to mitigate the risk posed to human health and the environment from contamination at their property (in lieu of active remediation).
<b>Explosive Materials</b>  K.A.R. 22-4-1 to 22-4-4	Requires all contractors to obtain explosive storage site permits before moving, storing or using any explosives or blasting agents at any job site within the state.	Will be applicable if explosives or blasting agents are used or stored at a site.

<b>TABLE 1</b> <b>KANSAS POTENTIALLY APPLICABLE RELEVANT AND APPROPRIATE REQUIREMENTS</b>		
<b>Citation</b>	<b>Description</b>	<b>Comment</b>
<b>Hazardous Waste Management Standards and Regulations</b>  K.A.R. 28-31-1 to 28-31-16	Identifies the characteristics and listing of hazardous waste. Prohibits underground burial of hazardous waste except as granted by EPA or KDHE. Establishes restrictions on land disposal. Establishes standards for generators or transporters of hazardous waste. Establishes standards for hazardous waste storage, treatment and disposal facilities.	Will be applicable if hazardous wastes are present at a site.
<b>Hydrocarbon Storage Wells and Well Systems</b>  K.A.R. 28-45-1 to 28-45-11	Establishes a system for permitting of hydrocarbon storage wells. Establishes requirements for construction, operation and monitoring, and plugging of hydrocarbon storage wells.	Will be applicable if hydrocarbon storage wells are present at a site.
<b>Kansas Board of Technical Professions</b>  K.A.R. 66-6-1 through 66-14-12	Establishes the requirements for licensing of engineers, land surveyors, geologists and architects.	Will be applicable if the services of a geologist, engineer or land surveyor are required for site investigations or remediation.
<b>Kansas Drycleaner Environmental Response Act</b>  K.A.R. 28-68-1 to 28-68-9	Enacted to provide funds to assist with assessment and corrective action of former and existing drycleaner facilities. Requires registration of dry-cleaning facilities and compliance with waste management measures.	May be applicable if a drycleaner operated onsite.
<b>Kansas Historic Preservation Act</b>  K.A.R. 118-3-1 to 118-3-16	Provides for the protection and preservation of sites and buildings listed on state or federal historic registries.	Will be applicable if a site or building is listed on the state or federal historic registry and if activities requiring permitting are initiated at a site.
<b>Kansas Water Appropriations Act</b>  K.A.R. 5-1-1 through 5-10-6 and K.A.R. 5-50-1 to 5-50-8	Establishes the requirements for obtaining, maintaining and transferring water appropriations.	Will be applicable if water appropriations are required for groundwater remediation.
<b>Mined Land Reclamation</b>  K.A.R. 47-16-1 to 47-16-11	Allows for the reclamation of mined land and associated waters.	Will be applicable if mined land or associated waters are to be reclaimed.
<b>Non-Game, Threatened or Endangered Species</b>  K.A.R. 115-15-1 to 115-15-4	Identifies Threatened and Endangered Species	Will be applicable if any of the identified species are present at a site.
<b>PCB Facility Construction Permit Standards and Regulations</b>  K.A.R. 28-55-1 to 28-55-5	Establishes the requirement for permitting of facilities constructed for the treatment, storage or disposal of materials containing polychlorinated biphenyls (PCBs). Establishes standards for PCB facilities.	Will be applicable if treatment, storage or disposal of materials containing PCBs occurs.
<b>Pesticides</b>  K.A.R. 4-13-1 to 4-13-65	Requires licensing of pesticide businesses and certification of persons that apply pesticides.	Will be applicable if pesticides are present at a site or application of pesticides occurs.

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<b>Petroleum Products Storage Tanks</b> K.A.R. 28-44-1 to 28-44-29	Provides requirements for permitting of the installation and operation of underground storage tanks (USTs). Provides requirements for design and construction of storage tanks. Provides a system for licensing contractors who install and test USTs. Requires implementation of methods for detecting releases and reporting releases from USTs.	Will be applicable if petroleum storage tanks are or were present at a site.
<b>Radiation</b> K.A.R. 28-35-1 to 28-35-363	Regulations require registration of radiation producing devices and licensing of sources of radiation. Provides standards for protection against radiation. Provides requirements for industrial radiographic operations and wireline and subsurface tracer studies.	Will be applicable if radiation producing devices or sources of radiation are present at or are used at a site.
<b>Solid Waste Management</b> K.A.R. 28-29-1 to 28-29-121 and K.A.R. 28-29-2101 to 28-29-2113	Provides standards for management of solid wastes. Establishes administrative procedures. Establishes the requirement for development and submittal of Solid Waste Management Plans.	Will be applicable if solid waste is generated, stored or disposed at a site.
<b>Spill Reporting</b> K.A.R. 28-48-1 to 28-48-2	Requires reporting of unpermitted discharges or accidental spills. Requires that containment and immediate environmental response measures be implemented. Also provides for technical assistance for mercury-related spills.	Will be applicable if unpermitted discharges or accidental spills occur at a site.
<b>Underground Injection Control Regulations</b> K.A.R. 28-46-1 to 28-46-44	Provides regulations governing the use of underground injection wells including: identification of the classifications of injection wells; and the permitting, construction, operation, monitoring, testing, and reporting requirements. Also provides requirements for plugging of injection wells.	Will be applicable if the remedy involves the injection of fluids or air into the subsurface.
<b>Underground Storage, Disposal Wells and Surface Ponds</b> K.A.R. 28-13-1 to 28-13-9	Regulates the construction and use of underground storage reservoirs, disposal wells and surface ponds for the confinement, storage and disposal of industrial fluids including but not limited to brine. Also pertains to removal of material from surface ponds upon abandonment. Does not include regulations pertaining to oil field activities.	Will be applicable if underground reservoirs, disposal wells or surface ponds are used for storage or disposal of industrial fluids at a site. Will be applicable if use of a surface pond is discontinued.
<b>Voluntary Cleanup and Property Redevelopment Program</b> K.A.R. 28-71-1 to 28-71-12	Provides a mechanism for property owners, facility operators, prospective purchasers, and local governments to voluntarily address contaminated properties with technical and regulatory guidance from KDHE. Identifies remedial standards for cleanup of environmental media. Establishes that groundwater cleanup levels shall be based on the most beneficial use of the groundwater (i.e., current and future use).	May be applicable if a site meets the criteria for acceptance into the Voluntary Cleanup Program. Remedial standards established under KAR 28-71-11 are relevant and appropriate for all other sites being managed under KDHE oversight.
<b>Water Pollution Control</b> K.A.R. 28-16-1 to 28-16-154	Provides regulation of sewage discharge. Establishes pre-treatment standards for industry. Designates uses of rivers and streams. Establishes River Basin Quality Criteria and Surface Water Quality Criteria. Provides for the establishment of Critical Water Quality Management Areas.	Will be applicable if water is to be discharged to state waterways.

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<b>Citation</b>	<b>Description</b>	<b>Comment</b>
<b>Water Well Contractor's License;</b> <b>Water Well Construction and</b> <b>Abandonment</b>  K.A.R. 28-30-1 to 28-30-10	Establishes the requirements for licensing of drillers. Regulates drilling activities including the construction of wells.	Will be applicable if drilling and/or well construction or abandonment is conducted at a site.

**TABLE 2**  
**TO BE CONSIDERED**

<b>Citation</b>	<b>Description</b>
Kansas Department of Health and Environment (KDHE), Bureau of Environmental Remediation (BER), Risk Based Standards for Kansas, RSK Manual, March 1, 2003, as amended.	Compiles risk-based cleanup screening goals for contaminants in soil and groundwater
Evaluating Future Land Use, KDHE BER Policy #BER-RS-005.	Future land use influences the types and frequencies of exposures that may occur to any residual contamination remaining on the site and therefore must be considered in making corrective action decisions.
Recommended Remedial Levels for Nitrate in Soil, KDHE BER Policy #BER-RS-012.	Addresses nitrate and ammonia contamination in the soil from point sources of contamination.
Investigation and Remediation of Salt (Chloride)-Impacted Soil and Groundwater, KDHE BER Policy #BER-RS-013A	Provides information on methods for investigating, evaluating and remediating soil and ground water contaminated with brine or salt.
Consideration for Remedial Standards, KDHE BER Policy #BER-RS-033.	Identifies remedial standards and situations where they should be used.
Soil Clean-up Levels for Total Petroleum Hydrocarbons, KDHE BER Policy #BER-RS-041.	Establishes Total Petroleum Hydrocarbon (TPH) human health and environmental risk-based actions levels consistent with the procedures adopted within the Risk-Based Standards for Kansas (RSK) manual.
Monitored Natural Attenuation, KDHE BER Policy #BER-RS-042.	Provides further clarification of additional KDHE-BER requirements to the guidance on monitored natural attenuation provided by EPA Directive 9200.4-17P.
Considerations for Groundwater Use and Applying RSK Standards to Contaminated Groundwater KDHE BER Policy #BER-RS-045.	Establishes a mechanism for consistency across BER programs in protecting public health and the environment, in addition to protection of ground water resources of the State.
Sediment Policy, KDHE BER Policy #BER-ARS-045	Provides a consistent definition and assessment approach for contaminated sediment sites in Kansas.
Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA, EPA540-G-89-004, October 1988.	Provides the methodology that the Superfund program uses to characterize the nature and extent of risk posed by uncontrolled hazardous wastes sites and for evaluating potential remedial alternatives.
Guidance for Quality Assurance Project Plans, EPA240-R-02-009, December 2002.	Describes the Quality Assurance Project Plan as four basic element groups covering project management, data generation and acquisition, assessment and oversight, and data validation and usability.
Guidance for the Data Quality Objectives Process, EPA600-R-96-055, August 2000.	Provides a systematic planning process to develop acceptance or performance criteria for collection, evaluation, or use of environmental data.
Risk Assessment Guidance for Superfund, Volume I, Part A EPA540-I-89-002, December 1989 Part B EPA540-R-92-003, December 1991 Part C EPA540-R-92-004, December 1991 Part D EPA540-R-97-033, December 2001 Part E EPA540-R-99-005, July 2004.	Provide guidelines for conducting a baseline risk assessment.
Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems, 2000, MacDonald, D.D , C.G. Ingersoll, and T.A. Berger. , <i>Archives of Environmental Contamination and Toxicology</i> 39:20-31.	Identifies Threshold Effect Concentration (TEC) to be used to assess impacts to sediment.
Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers, EPA542-S-02-001, May 2002.	Identifies methods for sampling groundwater.
Remedial Design/Remedial Action Handbook, EPA540-R-95-059, June 1995.	Provides an overview of the remedial design and remedial action processes.
Management of Remediation Waste under RCRA, EPA530-F-98-026, October 1998.	Describes management of contaminated environmental media, etc.
Best Management Practices (BMPs) for Soils Treatment Technologies, EPA530-R-97-007, May 1997.	Describes various BMPs to be implemented during remedy implementation.

<b>TABLE 2</b> <b>TO BE CONSIDERED</b>	
<b>Citation</b>	<b>Description</b>
Storm Water Management for Construction Activities EPA832-R-92-005, October 1992.	Describes storm water pollution prevention measures.
Guide to Discharging CERCLA Aqueous Wastes to Publicly Owned Treatment Works, EPA OSWER Directive 9330.2-13FS, March 1991.	Describes applicability and acceptable means of conveyance to a POTW.
Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites, EPA OSWER Directive 9200.4-17P, April 21, 1999.	Describes EPA's policy regarding the use of monitored natural attenuation for the remediation of contaminated soil and groundwater at sites administered by EPA's Office of Solid Waste and Emergency Response.